Practiti n r's D ck t N . MR2919-7/C

PATENT

10/607992 10/607992

Preliminary Classification:

Proposed Class:

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand comer of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129.' " M.P.E.P. § 601, 7th ed.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop PATENT APPLICATION Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): William McFarland, et al.

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title):

SCALABLE COMMUNICATION SYSTEM USING OVERLAID SIGNALS AND

MULTI-CARRIER FREQUENCY COMMUNICATION

EXPRESS MAILING UNDER 37 C.F.R. § 1.10*

(Express Mail label number is mandatory.)
(Express Mail certification is optional.)

 , in an envelope addressed to the Assistant 31 as "Express Mail Post Office to Addressee" Mailing
(type or print name of person mailing paper)

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

*WARNING: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 F. d. Reg. 56,439, at 56,442.

(New Application Transmittal [4-1]—page 1 of 15)

1. Type	of Application
This ne	ew application is for a(n)
	(check one applicable item below)
	Original (nonprovisional)
	Design
	☐ Plant
WARNING	G: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.
WARNING	G: Do not use this transmittal for the filing of a provisional application.
7	f one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION N PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.
	Divisional.
X	Continuation.
	Continuation-in-part (C-I-P).
2. Benef	fit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)
c ir tl tl n	A nonprovisional application or international application designating the United States of America may claim an invention disclosed in one or more prior-filed copending nonprovisional applications or international applications designating the United States of America. In order for an application to claim the benefit of a prior-filed copending nonprovisional application or international application designating the United States of America, each prior-filed application must name as an inventor at least one inventor named in the later-filed application and disclose the named inventor's invention claimed in at least one claim of the later-filed application in the manner provided by the first paragraph of 35 U.S.C. 112. In addition, each prior-filed application must be:
đ	 (i) An international application entitled to a filing date in accordance with PCT Article 11 and lesignating the United States of America; or
	(ii) Complete as set forth in § 1.51(b); or
fo	(iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set orth in § 1.16; or
	(iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention

37 C.F.R. § 1.78(a)(1).

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

fee set forth in § 1.21(I) within the time period set forth in § 1.53(f).

(New Application Transmittal [4-1]-page 2 of 15)

WARNING: 37 C.F.R. § 1.78(a)(2) deals with the time in which the claim for the benefit of an earlier filing date must be made and states:

- "(2)(i) Except for a continued prosecution application filed under § 1.53(d), any nonprovisional application or international application designating the United States of America claiming the benefit of one or more prior-filed copending nonprovisional applications or international applications designating the United States of America must contain or be amended to contain a reference to each such prior-filed application, identifying it by application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. Cross references to other related applications may be made when appropriate (see § 1.14).
 - (ii) This reference must be submitted during the pendency of the later-filed application. If the later-filed application is an application filed under 35 U.S.C. 111(a), this reference must also be submitted within the later of four months from the actual filing date of the later-filed application or sixteen months from the filing date of the prior-filed application. If the later-filed application is a nonprovisional application which entered the national stage from an international application after compliance with 35 U.S.C. 371, this reference must also be submitted within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) in the later-filed international application or sixteen months from the filing date of the prior-filed application. These time periods are not extendable. Except as provided in paragraph (a)(3) of this section, the failure to timely submit the reference required by 35 U.S.C. 120 and paragraph (a)(2)(i) of this section is considered a waiver of any benefit under 35 U.S.C. 120, 121, or 365(c) to such prior-filed application. The time periods in this paragraph do not apply if the later-filed application is:
 - (A) An application for a design patent;
 - (B) An application filed under 35 U.S.C. 111(a) before November 29, 2000; or
 - (C) A nonprovisional application which entered the national stage after compliance with 35 U.S.C. 371 from an international application filed under 35 U.S.C. 363 before November 29, 2000.
- (iii) If the later-filed application is a nonprovisional application, the reference required by this paragraph must be included in an application data sheet (§ 1.76), or the specification must contain or be amended to contain such reference in the first sentence following the title.
- (iv) The request for a continued prosecution application under § 1.53(d) is the specific reference required by 35 U.S.C. 120 to the prior-filed application. The identification of an application by application number under this section is the identification of every application assigned that application number necessary for a specific reference required by 35 U.S.C. 120 to every such application assigned that application number."
- NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.
 - The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Papers Enclosed

- A. Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153 (Design) Application
 - 27 Pages of specification
 - 12 Pages of claims
 - 4 Sheets of drawing

WARNING: DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the riginal drawing and a high-quality copy of the corrected original drawing then submitted to th Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).

NC	OTE:	inventor's been assig	name and applicati n number, or docket number (if any) if an application number has not application. If this information is provided, it must be placed on the front of each centered within the top margin."
			(complete the following, if applicable)
		The e	nclosed drawing(s) are photograph(s).
NO	TE:	37 C.F.R.	1.84
		"(b) Pho	tographs.
		permit design the cla blots (c and ur imagin omam by a d must t patent.	
		if the c	olor photographs. Color photographs will be accepted in utility and design patent applications onditions for accepting color drawings and black and white photographs have been satisfied. aragraphs (a)(2) and (b)(1) of this section."
		"PETIT	nclosed drawing(s) are in color. Three (3) sets of color drawings and a FION TO ACCEPT COLOR DRAWING(S)" are attached. 37 C.F.R. 4(a)(2) and 1.84(b).
NO	ΤΕ: :	37 C.F.R. 1	7.84(a)
		to disclos subject in such that drawings or copy t drawings a petition	c. On rare occasions, color drawings may be necessary as the only practical medium by which see the subject matter sought to be patented in a utility or design patent application or the natter of a statutory invention registration. The color drawings must be of sufficient quality all details in the drawings are reproducible in black and white in the printed patent. Color are not permitted in international applications (see PCT Rule 11.13), or in an application, thereof, submitted under the Office electronic filing system. The Office will accept color in utility or design patent applications and statutory invention registrations only after granting filed under this paragraph explaining why the color drawings are necessary. Any such petition ude the following:
		(i) Th	e fee set forth in § 1.17(h);
		(ii) Th	ree (3) sets of color drawings;
		, ,	black and white photocopy that accurately depicts, to the extent possible, the subject matter n in the color drawing; and
		previo	n amendment to the specification to insert (unless the specification contains or has been ously amended to contain) the following language as the first paragraph of the brief iption of the drawings:
		or pat	atent or application file contains at least one drawing executed in color. Copies of this patent tent application publication with color drawing(s) will be provided by the Office upon request payment of the necessary fee."
	X	formal	inger of the second of the sec
	\Box	informa	1
В.	Oth		·· Francisco
		•	(Copy from Parent Application of declaration and power of attorney SN 09/474,602 filed 12/29/1999)
	_	_	of abstract
			(Copies of 1. Small Entity Verification, and 2. Revocation and Appointment of Power of Attorney from Parent Application SN09/474,602 filed 12/29/1999) (New Application Transmittal [4-1]—page 4 of 15)

4.	Addi	tional papers enclosed
	X	Amendment to claims
		\boxtimes Cancel in this applications claims $\frac{2-31}{}$ before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
		Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)
	X	Preliminary Amendment
		Information Disclosure Statement (37 C.F.R. § 1.98)
		Form PTO-1449 (PTO/SB/08A and 08B)
		Citations
		Declaration of Biological Deposit
		Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.
		Authorization of Attorney(s) to Accept and Follow Instructions from Representative
		Special Comments
		Other
5.	Decla	aration or oath (including power of attorney)
	t 	A newly executed declaration is not required in a continuation or divisional application provided that the prior nonprovisional application contained a declaration as required, the application being filed is by all or fewer than all the inventors named in the prior application, there is no new matter in the application being filed, and a copy of the executed declaration filed in the prior application (showing the signature or an indication thereon that it was signed) is submitted. The copy must be accompanied by a statement requesting deletion of the names of person(s) who are not inventors of the application being filed. If the declaration in the prior application was filed under § 1.47, then a copy of that declaration must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning person under § 1.47 has subsequently joined in a prior application, then a copy of the subsequently executed declaration must be filed. See 37 C.F.R. §§ 1.63(d)(1)–(3).
NC	is a c	A declaration filed to complete an application must be executed, identify the specification to which it is directed, identify each inventor by full name including family name and at least one given name, without abbreviation together with any other given name or initial, and the residence, post office address and country or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 C.F.R. § 1.63(a)(1)–(4).
NC	a a is ti	The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration is prescribed by § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration is prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors." 37 C.F.R. § 1.41(a)(1).
	X	Enclosed (Copy from Parent Application SN 09/474,602 filed 12/29/1999)
		Executed by
		(check all applicable boxes)
		inventor(s).
		☐ legal representative of inventor(s). 37 C.F.R. §§ 1.42 or 1.43.
		(New Application Transmittal [4-1]—page 5 of 15)

joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
☐ This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F.R. § 1.47 is also attached. See item 13 below for fee.
☐ Not Enclosed.
NOTE: Where the filing is a completion in the U.S. of an International Application or where the completion of the U.S. application contains subject matter in addition to the International Application, the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.
Application is made by a person authorized under 37 C.F.R. § 1.41(c) on behalf of all the above named inventor(s).
(The declaration or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).
Showing that the filing is authorized. (not required unless called into question. 37 C.F.R. § 1.41(d))
6. Inventorship Statement
WARNING: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.
The inventorship for all the claims in this application are:
or
Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
is submitted.
☐ will be submitted.
7. Language
NOTE: An application including a signed oath or declaration may be filed in a language other than English. An English translation of the non-English language application and the processing fee of \$130.00 required by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within such time as may be set by the Office. 37 C.F.R. § 1.52(d).
☑ English
☐ Non-English
☐ The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).
8. Assignment
An assignment of the invention to
☐ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.
☐ will follow.
NOTE: "If an assignment is submitted with a new application, send two separate letters-on for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).
WARNING: A newly executed "CERTIFICATE UNDER 37 C.F.R. § 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.
(N w Application Transmittal [4-1]—pag 6 of 15)

×		nuation divisional application a parent application 09/474,602	nd the assignment
	on 29 December	: 1999	was med
			Reel 010607
			Frame <u>0377</u>
9. Certifi	ed Copy		
Certified	d copy(ies) of applic	ation(s)	
			
Counti	y -	Appln. No.	Filed
Countr	у	Appln. No.	Filed
Countr	у	Appln. No.	Filed
from whic	h priority is claimed		
	is (are) attached.		
	will follow.		
NOTE: 3	7 C.F.R. § 1.55 Claim fo.	r foreign priority.	
	"(a) * * *		
	during the pendency of to of the application or six period is not extendable, as well as any foreign a of the application for wintellectual property authors.	ration filed under 35 U.S.C. 111(a), the claim is the application, and within the later of four more teen months from the filing date of the prior. The claim must identify the foreign application opplication for the same subject matter and habit priority is claimed, by specifying the approprity), day, month, and year of its filing. The treation under 35 U.S.C. 111(a) if the application	oths from the actual filing date foreign application. This time in for which priority is claimed, aving a filing date before that colication number, country (or time periods in this paragraph
	(A) A design application;	or	
	(B) An application filed b	pefore November 29, 2000.	
	priority under 35 U.S.C paragraph (a) of this sect 119(a)-(d) or 365(a) is pri- claim may be accepted if number, country (or inte	accepted in accordance with the provisions of . 119(a)-(d) or 365(a) not presented within to ion is considered to have been waived. If a claipsented after the time period provided by parathe claim identifying the prior foreign applicational liectual property authority), and the day, mor A petition to accept a delayed claim for priori	the time period provided by im for priority under 35 U.S.C. agraph (a) of this section, the on by specifying its application on the section was

FORM 4-1

(Rel.90-4/02 Pub.605)

- or 365(a) must be accompanied by: (1) The claim under 35 U.S.C. 119(a)-(d) or 365(a) and this section to the prior foreign application,
- unless previously submitted;
 - (2) The surcharge set forth in § 1.17(t); and
- (3) A statement that the entire delay between the date the claim was due under paragraph (a)(1) of this section and the date the claim was filed was unintentional. The Commissioner may require additional information where there is a question whether the delay was unintentional."

(New Application Transmittal [4-1]—page 7 of 15)

NOTE: 37 C.F.R. § 1.63 Oath or declaration.

"(a) An oath or declaration filed under § 1.51(b)(2) as a part of a nonprovisional application must:

- (c) Unless such information is supplied on an application data sheet in accordance with § 1.76, the oath or declaration must also identify:
 - (2) Any foreign application for patent (or inventor's certificate) for which a claim for priority is made pursuant to § 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month, and year of its filing."

The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 C.F.R. § 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. § 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 C.F.R. § 1.16)

A. 🖾 Regular application

	ÇLAIMS AS	S FILED		
Number filed	Number E	xtra	Rate	Basic Fee 37 C.F.R. § 1.16(a) \$ 750.00
Total Claims (37 C.F.R. § 1.16(c))	50 - 20 = 30	×	\$ 18.00	540.00
Independent Claims (37 C.F.R. § 1.16(b))	18 - 3 = 15	×	\$ 84.00	1,260.00
Multiple dependent if any (37 C.F.R. §	* **	+	\$280.00	
☐ Amendm☐ Fee for €	nent cancelling extra claims nent deleting multiple-deper extra claims is not being pa extra claims are not paid on filing the	ndencies aid at thi ey must be	is enclosed is time. paid or the clair	ms cancelled by amendment
•	xpiration of the time period set for deficiency. 37 C.F.R. § 1.16(d). Filing Fee Calcula	•	by the Patent a	\$2,550.00
	application —37 C.F.R. § 1.16(f))			
	Filing Fee Calcula	ation		\$
C. Plant apr	plication			
	37 C.F.R. § 1.16(g))			

11. Ass rtion of Small Entity Status

Applicant hereby asserts status as a small entity under 37 C.F.R. § 1.27

NOTE: 37 C.F.R. § 1.27(c) deals with the assertion of small entity status, whether by a written specific declaration thereof or by payment as a small entity of the basic filing fee or the fee for the entry into the national phase and states:

- "(c) Assertion of small entity status. Any party (person, small business concern or nonprofit organization) should make a determination, pursuant to paragraph (f) of this section, of entitlement to be accorded small entity status based on the definitions set forth in paragraph (a) of this section, and must, in order to establish small entity status for the purpose of paying small entity fees, actually make an assertion of entitlement to small entity status, in the manner set forth in paragraphs (c)(1) or (c)(3) of this section, in the application or patent in which such small entity fees are to be paid.
 - (1) Assertion by writing. Small entity status may be established by a written assertion of entitlement to small entity status. A written assertion must:
 - (i) Be clearly identifiable;
 - (ii) Be signed (see paragraph (c)(2) of this section); and
 - (iii) Convey the concept of entitlement to small entity status, such as by stating that applicant is a small entity, or that small entity status is entitled to be asserted for the application or patent. While no specific words or wording are required to assert small entity status, the intent to assert small entity status must be clearly indicated in order to comply with the assertion requirement.
 - (2) Parties who can sign and file the written assertion. The written assertion can be signed by:
 - (i) One of the parties identified in § 1.33(b) (e.g., an attorney or agent registered with the Office), § 3.73(b) of this chapter notwithstanding, who can also file the written assertion;
 - (ii) At least one of the individuals identified as an inventor (even though a § 1.63 executed oath or declaration has not been submitted), notwithstanding § 1.33(b)(4), who can also file the written assertion pursuant to the exception under § 1.33(b) of this part; or
 - (iii) An assignee of an undivided part interest, notwithstanding §§ 1.33(b)(3) and 3.73(b) of this chapter, but the partial assignee cannot file the assertion without resort to a party identified under § 1.33(b) of this part.
 - (3) Assertion by payment of the small entity basic filing or basic national fee. The payment, by any party, of the exact amount of one of the small entity basic filing fees set forth in §§ 1.16(a), (f), (g), (h), or (k), or one of the small entity basic national fees set forth in §§ 1.492(a)(1), (a)(2), (a)(3), (a)(4), or (a)(5), will be treated as a written assertion of entitlement to small entity status even if the type of basic filing or basic national fee is inadvertently selected in error.
 - (i) If the Office accords small entity status based on payment of a small entity basic filing or basic national fee under paragraph (c)(3) of this section that is not applicable to that application, any balance of the small entity fee that is applicable to that application will be due along with the appropriate surcharge set forth in § 1.16(e), or § 1.16(f).
 - (ii) The payment of any small entity fee other than those set forth in paragraph (c)(3) of this section (whether in the exact fee amount or not) will not be treated as a written assertion of entitlement to small entity status and will not be sufficient to establish small entity status in an application or a patent."

WARNI		37 C.F.R. § 1.27(c)(4): "Assertion required in related, continuing, and reissue applications. Status as a small entity must be specifically establish d by an assertion in ach related, continuing and reissue application in which status is appropriate and desired. Status as a small entity in one application or patent does not affect the status of any other application or patent, regardless of the relationship of the applications or patents. The refiling of an application under § 1.53 as a continuation, divisional, or continuation-in-part application (including a continued prosecution application under § 1.53(d)), or the filing of a reissue application, requires a new assertion as to continued entitlement to small entity status for the continuing or reissue application." "Small entity status must not be established when the person or persons signing the statements."
		can unequivocally make the required self-certification." M.P.E.P., § 509.03 (emphasis added).
		(complete the following, if applicable)
2	8 5	Status as a small entity was asserted in the prior application
	- is	09 / 474.602 , filed on 29 December 1999 from which benefits being claimed for this application under:
		35 U.S.C. § ☐ 119(e) ☐ 120 ☐ 121 ☐ 365(c)
		and which status as a small entity is still proper and asserted for this application.
	(2	A copy of the written assertion of small entity filed in the prior application is included.
NOTE:	esta for a	fund based on establishment of small entity status, of a portion of fees timely paid in full prior to blishing status as a small entity may only be obtained if an assertion under § 1.27(c) and a request refund of the excess amount are filed within three months of the date of the timely payment of full fee. The three-month time period is not extendable under § 1.136. 37 C.F.R. § 1.28(a).
	F	iling Fee Calculation (50% of A, B or C above)
		\$ 1,275.00
12. Re	que	st for International-Type Search (37 C.F.R. § 1.104(d))
		(complete, if applicable)
C		lease prepare an international-type search report for this application at the time
		-

(New Application Transmittal [4-1]—page 10 of 15)

13. F	Fe	Payı	n nt B ing Mad at	t This Tim	
		Not	Enclosed		
			No filing fee is to be (This and the surch subsequently.)	e paid at this time. harge required by 37 C.F.R. §	1.16(e) can be paid
	X	End	losed		
		\mathbf{x}	Filing fee		$\frac{1,275.00}{}$
		Ō	Recording assignme (\$40.00; 37 C.F.R. § (See attached "COV ASSIGNMENT ACCOAPPLICATION".)	§ 1.21(h)) /ER SHEET FOR	\$
			inventors or person	y by other than all the on behalf of the inventor sed to sign or cannot be	\$
			For processing an a specification in a non-English langua	application with a	\$
			Processing and reter (\$130.00; 37 C.F.R.	ntion fee §§ 1.53(d) and 1.21(l))	\$
			Fee for international- (\$40.00; 37 C.F.R. §		\$
NOTE	fa 37 ei	iling to 7 C.F.I ther th	o complete the application R. §§ 1.53 and 1.78(a)(1), in	e for processing and retaining any applice pursuant to 37 C.F.R. § 1.53(f) and this, ndicate that in order to obtain the benefit paid, or the processing and retention feeder § 53(f).	as well as the changes to of a prior U.S. application,
			Total 1	fees enclosed .	\$ <u>1,275.00</u>
14. N	leth	od c	f Payment of Fees		
İ	X			money order in the amount of	
l	X	Auth	orization is hereby m	nade to charge the amount of \$	(Deficiencies Only)
		X	to Deposit Account N	No. <u>18-2011</u>	
			to Credit card as sho tion form PTO-2038.	own on the attached credit card in	nformation authoriza-
WARN	IING.	: Cre	dit card information should	d not be included on this form as it may	v become public.
[X		rge any additional fee e manner authorized	es required by this paper or cre above.	dit any overpayment
			A duplicate of this pa	aper is attached.	

13.	F	Paym nt Being Made at This Time	
		Not Enclosed	
		□ No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. § 1 subsequently.)	.16(e) can be paid
	X	☑ Enclosed	
		☑ Filing fee	\$ 1,275.00
		☐ Recording assignment (\$40.00; 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".)	\$
		Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached	•
		(\$130.00; 37 C.F.R. §§ 1.47 and 1.17(i))	\$
		 ☐ For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52(d) and 1.17(k)) 	\$
		☐ Processing and retention fee	-
		(\$130.00; 37 C.F.R. §§ 1.53(d) and 1.21(l))	\$
		☐ Fee for international-type search report (\$40.00; 37 C.F.R. § 1.21(e))	\$
NOT	fa 3 ei	37 C.F.R. § 1.21(f) establishes a fee for processing and retaining any application failing to complete the application pursuant to 37 C.F.R. § 1.53(f) and this, as 37 C.F.R. §§ 1.53 and 1.78(a)(1), indicate that in order to obtain the benefit of either the basic filing fee must be paid, or the processing and retention fee of within 1 year from notification under § 53(f).	well as the changes to a prior U.S. application,
		Total fees enclosed \$	1,275.00
14. I	Meth	thod of Payment of Fees	
	X	Attached is a ☑ check ☐ money order in the amount of \$ _	
	X	Authorization is hereby made to charge the amount of \$	Deficiencies Only
		☑ to Deposit Account No. <u>18-2011</u>	
		to Credit card as shown on the attached credit card info tion form PTO-2038.	rmation authoriza-
WAR	NING	G: Credit card information should not be included on this form as it may be	ecome public.
	X	Charge any additional fees required by this paper or credit in the manner authorized above.	any overpayment
		A duplicate of this paper is attached.	

15.	Au	th i	ization to Charge Additional Fees
W	ARNII	VG:	If no fees are to be paid on filing, the foll wing items should not be completed.
W	ARNII	VG:	Accurately count claims, specially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.
	X	fe	the Office is hereby authorized to charge, in the manner shown above, the bllowing additional fees that may be required by this paper and during the entire endency of this application.
		8	37 C.F.R. § 1.16(a), (f) or (g) (filing fees)
		5	37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)
N		mus set f to a	ause additional fees for excess or multiple dependent claims not paid on filing or on later presentation to only be paid or these claims cancelled by amendment prior to the expiration of the time period for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not athorize the PTO to charge additional claim fees, except possibly when dealing with amendments final action.
			37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
			37 C.F.R. § 1.17(a)(1)–(5) (extension fees pursuant to § 1.136(a)).
			37 C.F.R. § 1.17 (application processing fees)
740		or fu as in chan cons an e. § 1. requi	A written request may be submitted in an application that is an authorization to treat any concurrent ture reply, requiring a petition for an extension of time under this paragraph for its timely submission, corporating a petition for extension of time for the appropriate length of time. An authorization to ge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a tructive petition for an extension of time in any concurrent or future reply requiring a petition for xtension of time under this paragraph for its timely submission. Submission of the fee set forth in 17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply ring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. 136(a)(3).
			37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))
NC		of a l	re an authorization to charge the issue fee to a deposit account has been filed before the mailing Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time ailing the notice of allowance. 37 C.F.R. § 1.311(b).
NO	;	entity fee. even	F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small a status must be filed in the application prior to paying, or at the time of paying, the issue . " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made if the fee is paid as "other than a small entity" and (b) no notification is required if the change another small entity.
16.	Inst	ruc	tions as to Overpayment
NO		a rea be re	Amounts of twenty-five dollars or less will not be returned unless specifically requested within sonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may turned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).
	X	C	redit Account No. 18-2011
		R	efund
			·

(New Application Transmittal [4-1]—page 12 of 15)

Reg. No. 40,262

Tel. No. (410) 465-6678

Customer No. 04586

SIGNATURE OF PRACTITIONER

Jun Y. Lee, Reg. No. 40,262

(type or print name of attorney)
ROSENBERG, KLEIN & LEE

3458 Ellicott Center Drive - Ste. 101

P.O. Address

Ellicott City, Maryland 21043

(New Application Transmittal [4-1]—page 13 of 15)

X	Incor	poration by reference of add d pages
	pi st th	heck the following item if the application in this transmittal claims the benefit or U.S. application(s) (including an international application entering the U.S age as a continuation, divisional or C-I-P application) and complete and attache ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF U.S. APPLICATION(S) CLAIMED)
	X	Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S Application(s) Claimed Number of pages added8
	X	Plus Added Pages for Papers Referred to in Item 4 Above Number of pages added
		Plus added pages deleting names of inventor(s) named in prior application(s who is/are no longer inventor(s) of the subject matter claimed in this application Number of pages added
		Plus "Assignment Cover Letter Accompanying New Application" Number of pages added
	State	ment Where No Further Pages Added
		no further pages form a part of this Transmittal, then end this Transmittal with is page and check the following item)
		This transmittal ends with this page.

(New Application Transmittal [4-1]—page 14 of 15)

MR2919-7/C

PATENT

ADDED PAGES FOR APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED (37 C.F.R. § 1.78)

17. Relate Back

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. § 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. § 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. § 119, 365(a) or 365(b).) For a c-l-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

(complete the following, if applicable)

Amend the specification by inserting, before the first line following the title, the following sentence:

35 U.S.C. § 119(e)

NOTE: 37 C.F.R. § 1.78(a)(4) and (5):

"(4) A nonprovisional application, other than for a design patent, or an international application designating the United States of America may claim an invention disclosed in one or more prior-filed provisional applications. In order for an application to claim the benefit of one or more prior-filed provisional applications, each prior-filed provisional application must name as an inventor at least one inventor named in the later-filed application and disclose the named inventor's invention claimed in at least one claim of the later-filed application in the manner provided by the first paragraph of 35 U.S.C. 112. In addition, each prior-filed provisional application must be entitled to a filing date as set forth in § 1.53(c), and the basic filing fee set forth in § 1.16(k) must be paid within the time period set forth in § 1.53(g).

"(5)(i) Any nonprovisional application or international application designating the United States of America claiming the benefit of one or more prior-filed provisional applications must contain or be amended to contain a reference to each such prior-filed provisional application, identifying it by the provisional application number (consisting of series code and serial number).

- (ii) This reference must be submitted during the pendency of the later-filed application. If the later-filed application is an application filed under 35 U.S.C. 111(a), this reference must also be submitted within the later of four months from the actual filing date of the later-filed application or sixteen months from the filing date of the prior-filed provisional application. If the later-filed application is a nonprovisional application which entered the national stage from an international application after compliance with 35 U.S.C. 371, this reference must also be submitted within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) in the later-filed international application or sixteen months from the filing date of the prior-filed provisional application. These time periods are not extendable. Except as provided in paragraph (a)(6) of this section, the failure to timely submit the reference is considered a waiver of any benefit under 35 U.S.C. 119(e) to such prior-filed provisional application. The time periods in this paragraph do not apply if the later-filed application is:
 - (A) An application filed under 35 U.S.C. 111(a) before November 29, 2000; or
 - (B) A nonprovisional application which entered the national stage after compliance with 35 U.S.C. 371 from an international application filed under 35 U.S.C. 363 before November 29, 2000.
- (iii) If the later-filed application is a nonprovisional application, the reference required by this paragraph must be included in an application data sheet (§ 1.76), or the specification must contain or be amended to contain such reference in the first sentence following the title."

(Added Pag s for Applicati n Transmittal Where B nefit of Prior U.S. Application(s) Claimed [4-1.4] -page 1 of 8)

	"This application claims the benefit of U.S. Provisional Application(s) No(s).: APPLICATION NO(S).: FILING DATE
WARNING:	37 C.F.R. § 1.78(5)(iv): "(iv) If the prior-filed provisional application was filed in a language other than English and an English-language translation of the prior-filed provisional application and a statement that the translation is accurate were not previously filed in the prior-filed provisional application or the later-filed nonprovisional application, applicant will be notified and given a period of time within which to file an English-language translation of the non-English-language prior-filed provisional application and a statement that the translation is accurate. In a pending nonprovisional application, failure to timely reply to such a notice will result in abandonment of the application."
	Language of Prior Filed Provisional Application
(St	upply information for each provisional whose benefit is being claimed)
The above	identified prior filed provisional application whose benefit is being claimed
'	was filed in the English language
	was filed in a language other than English and an English translation along with a statement that the translation is accurate was filed in the provisional application
	was filed in a language other than English and an English translation along with a statement that the translation is accurate is filed herewith
B. 35 U.	S.C. Sections 120, 121 and 365(c)
WARNING:	The applicable provisions for the time and manner of claiming the benefit of a prior U.S. application filing date are set forth in 37 C.F.R. § 1.78(a)(1) and (2) as follows:
	"(a)(1) A nonprovisional application or international application designating the United States of America may claim an invention disclosed in one or more prior-filed copending nonprovisional applications or international applications designating the United States of America. In order for an application to claim the benefit of a prior-filed copending nonprovisional application or international application designating the United States of America, each prior-filed application must name as an inventor at least one inventor named in the later-filed application and disclose the named inventor's invention claimed in at least one claim of the later-filed application in the manner provided by the first paragraph of 35 U.S.C. 112. In addition, each prior-filed application must be:
	(i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
	(ii) Complete as set forth in § 1.51(b); or
	(iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
	(iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).
(Add	ded Pages for Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed [4-1.4] —page 2 of 8)

- (2)(i) Except for a continued pros cution application fil d under § 1.53(d), any nonprovisional application or international application designating the United States of America claiming the benefit f one or more prior-filed copending nonprovisional applications or international applications designating the United States of America must contain or be amended to contain a reference to each such prior-filed application, identifying it by application number (consisting of the series code and serial number) or international application number and international filing date and indicating the relationship of the applications. Cross references to other related applications may be made when appropriate (see § 1.14).
 - (ii) This reference must be submitted during the pendency of the later-filed application. If the later-filed application is an application filed under 35 U.S.C. 111(a), this reference must also be submitted within the later of four months from the actual filing date of the later-filed application or sixteen months from the filing date of the prior-filed application. If the later-filed application is a nonprovisional application which entered the national stage from an international application after compliance with 35 U.S.C. 371, this reference must also be submitted within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) in the later-filed international application or sixteen months from the filing date of the prior-filed application. These time periods are not extendable. Except as provided in paragraph (a)(3) of this section is considered a waiver of any benefit under 35 U.S.C. 120 and paragraph (a)(2)(i) of this section is considered a waiver of any benefit under 35 U.S.C. 120, 121, or 365(c) to such prior-filed application. The time periods in this paragraph do not apply if the later-filed application is:
 - (A) An application for a design patent;
 - (B) An application filed under 35 U.S.C. 111(a) before November 29, 2000; or
 - (C) A nonprovisional application which entered the national stage after compliance with 35 U.S.C. 371 from an international application filed under 35 U.S.C. 363 before November 29, 2000.
 - (iii) If the later-filed application is a nonprovisional application, the reference required by this paragraph must be included in an application data sheet (§ 1.76), or the specification must contain or be amended to contain such reference in the first sentence following the title.
 - (iv) The request for a continued prosecution application under § 1.53(d) is the specific reference required by 35 U.S.C. 120 to the prior-filed application. The identification of an application by application number under this section is the identification of every application assigned that application number necessary for a specific reference required by 35 U.S.C. 120 to every such application assigned that application number."

X	"Tł	nis application is a		
	X	continuation		
		continuation-in-part		
		divisional		
of cop	enc	ding application(s)		
	X	application number 09/474,602	filed on 29 December	<u>: 1999</u> "
		International Applicationwhich designated the U.S."	filed on	and
NOTE		he proper reference to a prior filed PCT applica erial number and the filing date of the PCT app		e is the U.S.
NOTE	tl	 Where the application being transmitted adds ne filing can be as a continuation-in-part or (2) if an be as a continuation. 	•	-
	(Added Pages for Application Transmittal Where	Benefit of Prior U.S. Application(s) Clai	med [4-1.4]

□ "Т			nated abov, namely applica	
Pr	ovisional Application(•	, claimo ano perione en	
	APPLIC	CATION NO(S).:	FILING DATE	
		·	77	
C. Langu	age of Publication o	of International App	plication	
☐ Pie	ease indicate in the f	irst sentence of the	application:	
"The intern	ational application co	rresponding to the	instant application	
☐ wa	as		·	
□ wa	as not			
published und	der PCT Article 21(2)	in the English lange	uage."	
	here more than one roo one sentence.	eference is made a	bove please combine all referen	ces
18. Relate I	Back—35 U.S.C. § 1	19 Priority Claim f	or Prior Application	
	F.R. § 1.55 Claim for forei	-		
mor			claim the benefit of the filing date of or pecified in 35 U.S.C. 119(a) through (d)	
di di tir ci be ce	uring the pendency of the ate of the application or size me period is not extendable laimed, as well as any fore efore that of the application	application, and within to kteen months from the file. The claim must identified ign application for the so In for which priority is clar ty authority), day, month	11(a), the claim for priority must be prese he later of four months from the actual ling date of the prior foreign application fy the foreign application for which prion ame subject matter and having a filing aimed, by specifying the application numb, and year of its filing. The time period in sign patent.	filing This ity is date nber,
	compliance with 35 U.S.C.	. 371, the claim for priori	age from an international application a ty must be made during the pendency of e PCT and the Regulations under the P	f the
11 pr it	19(b) or PCT Rule 17 must riority or the certified copy must be accompanied by t	t, in any event, be filed be of the foreign application he processing fee set for	ne foreign application specified in 35 U.before the patent is granted. If the claim in is filed after the date the issue fee is p th in § 1.17(i), but the patent will not inc correction under 35 U.S.C. 255 and § 1.	n for paid, lude
(Adde	d Pages for Application Ti	ansmittal Where Benefit	of Prior U.S. Application(s) Claimed [4- —page 4 o	_

The prior U.S. application(s), including any prior International Application designating the U.S., identified above in item 17B, in turn itself claim(s) foreign priority(ies) as follows:

C	ount	ry	Appln. No.	Filed
The	е се	rtifie	ed copy(ies) has (have)	
			een filed on, in prior application 0 / hich was filed on	 ,
		is	(are) attached.	
		ti aj a si pi di to ei si	The certified copy of the priority application that may have been communitied International Bureau may not be relied on without any need to file a certified application in the continuing application. This is so because the certified application communicated by the International Bureau is placed in a folder at U.S. serial number unless the national stage is entered. Such folders are displated is not entered. Therefore, such certified copies may not be available prosecution of a continuing application. An alternative would be to physical documents from the folders and transfer them to the continuing application. To orequest transfer, retrieve the folders, make suitable record notations, transfer and make a record of such copies in the Continuing Application are suitable may not be relied on. Notice of April 28, 1987 (1079 O.G. 32 to 46)	ied copy of the priority of copy of the priority or and is not assigned cosed of if the national if needed later in the ally remove the priority of the certified copies, bstantial. Accordingly, tentered the national
19.	Maiı	nten	nance of Copendency of Prior Application	
NOT	n	espor	PTO finds it useful if a copy of the petition filed in the prior application eanse is filed with the papers constituting the filing of the continuation and the filing of the continuation and the file of the continuation and the file of the continuation and the file of t	
A.		Ext	tension of time in prior application	
ſΤŧ	nis it	em i	must be completed and the papers filed in the prior apple period set in the prior application has run.)	lication, if the
		A p	petition, fee and response extends the term in the pending til	prior application
		A	copy of the petition filed in prior application is attached.	
B.		Co	onditional Petition for Extension of Time in Prior Application	1
			(complete this item, if previous item not applicable)	
			A conditional petition for extension of time is being filed in application.	the pending prior
			A copy of the conditional petition filed in the prior applica	ation is attached.
	٠			
	(Adde	ed Pages for Application Transmittal Where Benefit of Prior U.S. Application	on(s) Claimed [4-1.4] —page 5 of 8)

•	
(complete applicable item (a), (b) and/or (c) below)	
(a) This application discloses and claims only subject matter disclosed in the price application whose particulars are set out above and the inventor(s) in the application are	
less than those named in the prior application. It is requested that the following inventor(s) identified for the prior application be deleted:	е
(type name(s) of inventor(s) to be deleted)	_
(b) This application discloses and claims additional disclosure by amendment an a new declaration or oath is being filed. With respect to the prior application the inventor(s) in this application are	
☐ the same.	
the following additional inventor(s) have been added:	
(type name(s) of inventor(s) to be deleted)	_
(c) In the inventorship for all the claims in this application are	
not the same. An explanation, including the ownership of the various claim at the time the last claimed invention was made	S
is submitted.	
☐ will be submitted.	
21. Abandonment of Prior Application (if applicable)	
Please abandon the prior application at a time while the prior application i pending, or when the petition for extension of time or to revive in that application is granted, and when this application is granted a filing date, so as to make thi application copending with said prior application.	n
NOTE: According to the Notice of May 13, 1983 (103, TMOG 6-7), the filing of a continuation or continuation-in part application is a proper response with respect to a petition for extension of time or a petition to revive and should include the express abandonment of the prior application conditioned upon the granting of the petition and the granting of a filing date to the continuing application.	0
22. Petition for Suspension of Prosecution for the Time Necessary to File at Amendment	1
WARNING: "The claims of a new application may be finally rejected in the first Office action in those situation where (A) the new application is a continuing application of, or a substitute for, an earlier application and (B) all the claims of the new application (1) are drawn to the same invention claimed in the earlier application, and (2) would have been properly finally rejected on the grounds of art of recommendation in the next Office action if they had been entered in the earlier application." M.P.E.P. § 706.07(b) 7th ed.), B d
NOTE: Where it is possible that the claims on file will give rise to a first action final for this continuation application and for some reason an amendment cannot be filed promptly (e.g., experimental data is being gathered it may be desirable to file a petition for suspension of prosecution for the time necessary.	
(check the next item, if applicable)	
There is provided herewith a Petition To Suspend Prosecution for the Time Necessary to File An Amendment (New Application Filed Concurrently)	,
(Added Pages for Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed [4-1.4, —page 6 of 8	-

20. Furth r Inv ntorship Statement Where Benefit of Prior Application(s) Claim d

	Entity (37 C.F.R. § 1.28(a))
2 3	Applicant has established small entity status by the filing of a statement in parent application09 /474,602 on ²⁹ December 1999
X	A copy of the statement previously filed is included.
WARNING:	See 37 C.F.R. § 1.28(a).
WARNING:	"Small entity status must not be established when the person or persons signing the statement can unequivocally make the required self-certification." M.P.E.P. § 509.03, 7th ed. (emphasis added).
24. NOTI	FICATION IN PARENT APPLICATION OF THIS FILING
X	A notification of the filing of this
	(check one of the following)
	□ continuation-in-part
	☐ divisional
s being file	ed in the parent application, from which this application claims priority under 35 20.

ADDED PAGE(S) FOR APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED

Incorporation by Reference of Prior Application

The entire disclosure of the prior application, SN 09/474,602, from which an oath or declaration is supplied under Item 5 of this Transmittal, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

Added page 8 of 8

(Added Pages for Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed [4-1.4]
—page 8 of 8)

Pal 00_ 1/07 | Dub 6051

FORM 4-1.4

4 19